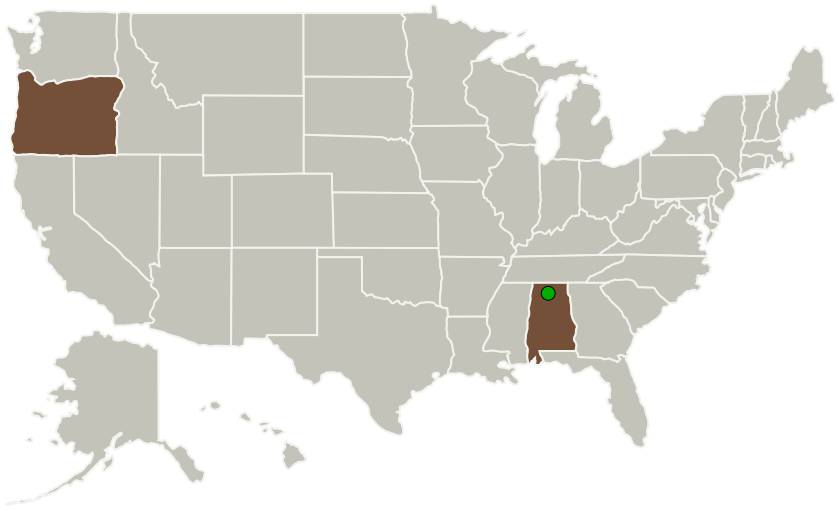
Radiation-Hardened HDTV Sensors, Phase I

Completed Technology Project (2011 - 2011)

Project Introduction

High-performance HDTV cameras are commercially widespread, but are not presently available in radiation-hard versions. The objective of the proposed SBIR effort is to develop and commercialize a radiation-hard, high-performance HDTV sensor for NASA missions and other space-based and high-energy physics applications. Key features of this program are the use of radiation-hard, fully depleted silicon photodiodes to maximize quantum efficiency, and the use of both radiation-hard-by-process and radiation-hard-by-design strategies in the development of the highly integrated readout circuit. Voxtel anticipates that its technology will enter the program at TRL=3, finish Phase I at TRL=4, and exit the Phase II program at TRL=5.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
Voxtel, Inc.	Lead Organization	Industry	Beaverton, Oregon
Marshall Space Flight Center(MSFC)	Supporting Organization	NASA Center	Huntsville, Alabama

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Primary U.S. Work Locations	
Alabama	Oregon

Project Transitions

February 2011: Project Start

August 2011: Closed out

Closeout Documentation:

- Final Summary Chart*(https://techport.nasa.gov/file/140159)*

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Organization:

Voxtel, Inc.

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Principal Investigator:

Adam Lee

Co-Investigator:

Adam J Lee

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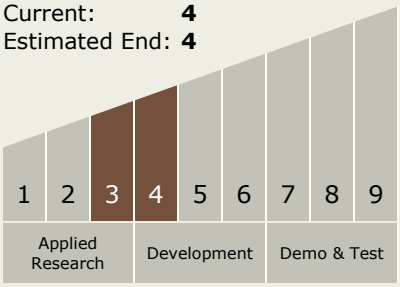
Technology Maturity (TRL)

Start: **3**
Current: **4**
Estimated End: **4**



Technology Areas

Primary:

- TX17 Guidance, Navigation, and Control (GN&C)
  - TX17.2 Navigation Technologies
    - TX17.2.3 Navigation Sensors

Target Destinations

The Sun, Earth, The Moon, Mars, Others Inside the Solar System, Outside the Solar System